KYOTO ELECTRONICS MANUFACTURING CO.,LTD.

TIQ-98012enL

Application Memo

Quantitative Determination of Hydrogen Peroxide and Peracetic Acid in Cleaning Solution

Industry	Inorganic chemical industry
Instrument	Automatic potentiometric titrator
Measurement method	Precipitation titration
Standards	

1. Overview

After adding water and 25% sulfuric acid solution to the sample, it is titrated with 0.02mol/L potassium permanganate solution. The endpoint is the maximum inflexion on the titration curve. The hydrogen peroxide concentration is calculated from the titration volume of the titrant. After adding 20% potassium iodine solution to the titrated sample, it is titrated with 0.1mol/L sodium thiosulfate solution. The endpoint is the maximum inflexion on the titration curve. The peracetic acid concentration is calculated from the titration volume of the titrant.

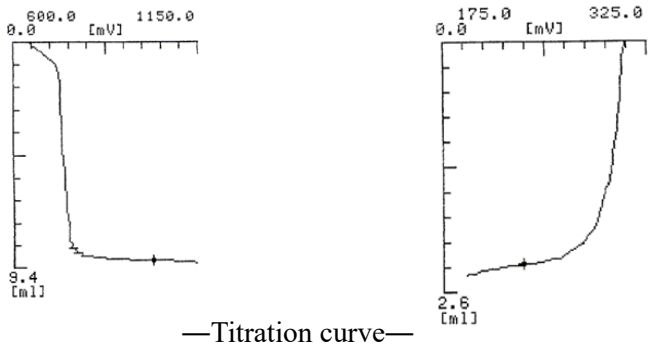
2. Apparatus

Main unit	Automatic potentiometric titrator (preamplifier STD)
Electrode	Platinum electrode, Ceramic reference electrode

3. Reagents

Titrant	0.02mol/L(0.1N) potassium permanganate solution 0.1mol/L sodium thiosulfate solution
Solvent	Water, 25% sulfuric acid solution, 20% potassium iodine solution

4. Example



—Titration curve—

—Measurement results—

	Hydrogen Peroxide			Peracetic Acid		
	Sample(g)	Titer(mL)	Conc.(%)	Sample(g)	Titer(mL)	Conc.(%)
1	5.0	9.1253	0.3103	5.0	2.3197	2.320
2	5.0	9.2012	0.3128	5.0	2.2869	2.287
3	5.0	9.1382	0.3107	5.0	2.2662	2.266
Average			0.3113			2.291
SD			0.0138			0.027
RSD(%)			0.443			1.2

Please feel free to contact us for any further information.

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